

Remarks

The final Office Action dated January 29, 2003 has been received and carefully considered. Claims 1-36 are pending in the present application.

In this response claims 1, 13, 14, 22, 26, 29 and 33 have been amended. Claims 30 and 31 have been deleted without prejudice. Entry of the amendments to claims 1, 13, 14, 22, 26, 29 and 33 is respectfully requested. Reconsideration of the outstanding claim rejections is also respectfully requested based on the following remarks.

1. Objection to Claims 1, 13, 14, 22, 29 and 33

On page 2 of the Office Action claims 1, 13, 14, 22, 29 and 33 are objected to because of informalities. These matters have been addressed within the claim amendments.

2. The Obviousness rejection of claims 1-3, 5-8, 10, 12-14, 16-20, 22, 24-26, 28-32 and 35

On pages 2-5 of the Office Action claims 1-3, 5-8, 10, 12-14, 16-20, 22, 24-26, 28-32 and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Huang (US Patent No. 6266345 B1) in view of Stiliadis et al (US Patent No. 6134217). This rejection is hereby respectfully traversed.

The Huang reference was filed April 24, 1998 as US Patent application no. 09/066,266. Applicants respectfully submit that the invention disclosed and claimed in the present application was conceived prior to April 24, 1998. Applicants also respectfully submit that they were duly diligent in preparing and filing the present application from the date of conception of the invention disclosed and claimed in the present application to the filing date of the present application (i.e. October 06, 1998).

Applicants support the above stated submissions with inventor declarations under 37 CFR §1.131 which are submitted herewith and which contain a showing of facts that clearly establish the above stated submissions. Accordingly the Huang reference is not a proper prior art reference for application against the claims of the present application.

In view of the foregoing it is respectfully submitted that the obviousness rejection of claims 1-3, 5-8, 10, 12-14, 16-20, 22, 24-26, 28-32 and 35 is improper and the withdrawal of such rejection is respectfully requested.

At this point it should be noted that claims 1, 13, 14, 22, 26 and 29 have been amended such that they have been substantially restored to their original form at the time of filing the present application. Thus no new matter has been added and no further consideration or search should be required.

3. The Obviousness rejection of Claims 4, 15, 23 and 27

On pages 5 and 6 of the Office Action, claims 4, 15, 23 and 27 are rejected under 35 USC §103(a) as being unpatentable over Huang (US Patent No. 6266345B1) and Stiliadis (US Patent No. 6134217) in further view of Oksanen (US Patent No. 5666351). This rejection is hereby respectfully traversed with amendment.

As discussed above the Huang reference is not a proper prior art reference for application against the claims of the present application.

In view of the foregoing it is respectfully submitted that the obvious rejection of claims 4, 15, 23 and 27 is improper and the withdrawal of such a rejection is respectfully requested. At this point it should again be noted that claims 1, 13, 14, 22, 26 and 29 have been amended such that they have been substantially restored

to their original form at the time of filing the present application. Thus no new matter has been added and no further consideration or search should be required.

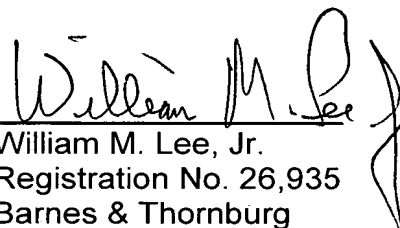
4. Conclusion

In view of the foregoing it is respectfully submitted that the present application is in condition for allowance and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions or suggestions arise in connection with the present application.

This response is timely filed within 2 months following the Office Action, as March 29, 2003 was a Saturday.

March 31, 2003

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Lee, Jr.", is written over a horizontal line. To the right of the signature is a large, stylized flourish or checkmark.

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Version With Markings To Show Changes Made

APPENDIX A

1. (Twice amended) A method of transporting data over a synchronous digital network, said method comprising the steps of:

generating in parallel a plurality of synchronous virtual containers, each at a lower bit rate than a bit rate of said data, each said virtual container having a payload section;

associating said plurality of virtual containers with each other by means of assigning association data describing said association into said plurality of virtual containers;

[indicating for each virtual container the time at which each virtual container was generated relative to other associated virtual containers;]

inputting said transported data into said payloads of said plurality of virtual containers; and

outputting said plurality of associated virtual containers onto a synchronous digital network.

13. (Twice amended) Apparatus for incorporating data input at a first data rate into a plurality of streams of synchronous digital hierarchy virtual containers each output at a second data rate, said apparatus comprising:

means for continuously generating a plurality of virtual containers in parallel;

means for generating data describing an association of said plurality of virtual containers, and for assigning said association data to said plurality of associated virtual containers; and

means for inserting said first data rate data into said plurality of payloads of said plurality of virtual containers

[wherein said data describing said association includes data indicating for each virtual container the time at which each virtual container was generated relative to other associated virtual containers].

14. (Twice amended) A method of recovering data from a plurality of synchronous virtual containers, said method comprising the steps of:

- receiving said plurality of virtual containers;
- identifying an association data from said plurality of virtual containers, said association data indicating an association between individual ones of said plurality of virtual containers;
- reading data bytes from each payload of said plurality of associated virtual containers; and
- re-assembling said data from said plurality of read payload data bytes[, wherein said association data includes data indicating for each virtual container the time at which each virtual container was generated relative to other associated virtual containers].

22. (Twice amended) A method of recovering data carried in payloads of a plurality of associated synchronous digital hierarchy virtual containers, said method comprising the steps of:

- for each said virtual container:
 - reading data indicating an association between said virtual container and other ones of said plurality of virtual containers;
 - allocating a memory storage area for storing a payload of said virtual container;
 - inputting said virtual container payload into said memory area; and
 - reading said data from said memory area in parallel with data read from other said memory areas corresponding to payloads of other said virtual containers of said plurality of virtual containers[;

wherein said data indicating said association includes data indicating for each virtual container the time at which each virtual container was generated relative to other associated virtual containers].

26. (Twice amended) A method of recovering a data block carried in a plurality of payloads of a plurality of associated synchronous digital hierarchy virtual containers, said method comprising steps of:

receiving a plurality of streams of said plurality of associated virtual containers;

for each said received virtual container stream allocating a corresponding respective memory area for storage of data payloads of virtual containers of said stream;

[synchronising each virtual container in the received virtual container stream with virtual containers received in other streams to remove any differential delay between virtual container streams;]

storing said plurality of virtual container payloads in said corresponding allocated memory areas; and

reading individual bytes of said plurality of stored virtual container data payloads in sequence to reconstruct said data block.

29. (Twice amended) Apparatus for recovering data from a plurality of synchronous digital hierarchy virtual containers containing said data, said means comprising:

a random access memory configured into a plurality of individual memory areas allocated for storage of payloads of said plurality of virtual containers;

a data processor means operating to identify an association data of said virtual containers, said association data indicating an association of said plurality of virtual containers; and

means for generating a plurality of read pointers operating to successively read a plurality of memory locations of said memory areas for recovering said data from

said plurality of virtual containers[, wherein said association data includes data indicating for each virtual container the time at which each virtual container was generated relative to other associated virtual containers].

33. A method as claimed in claim 32, wherein indicating a[the] time at which each virtual container was generated relative to other associated virtual containers is incorporated over several virtual containers by utilizing one or more bits from the payload of each successive virtual container of an association of virtual containers.